

REMARKS

This paper is filed in response to the Office Action mailed November 19, 2008. Claims 1–5 and 7–20 were pending and were rejected. No claims are amended herein; therefore, Claims 1–5 and 7–20 remain pending.

Rejections Under 35 U.S.C. § 101

The Examiner rejected claims 1–5 and 11–20 as directed to non-statutory subject matter, stating that “the present claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.” In response, Applicants have amended independent claims 1, 3, 11 and 16 to recite that the video signal is “representative of a scene,” which is supported at least by ¶ [0015] of the specification. The video signal therefore represents “physical and tangible objects,” and allowable for the reasons discussed in *Bilski*. More particularly, In *Bilski*, the federal circuit noted that in *Abele*, they held a process for manipulating data as patent-eligible subject matter because the “data clearly represented physical and tangible objects. Such is the case here. Therefore the § 101 rejection is improper and should be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 1–5

The Examiner rejected claims 1–5 as obvious over U.S. Patent 5,260,783 to Dixit (“Dixit”) in view of U.S. Pre-grant Publication 2003/0227972 to Fukuda (“Fukuda”) and in view of ITU-T Recommendation H.264. Dixit teaches a video encoding technique in which a strip of blocks can be intra coded while the remainder of the frame is inter coded. Fukuda teaches an intra refresh mechanism where certain blocks are prioritized for more frequent refreshing based on their perceptual importance. H.264 is a standard video codec.

Claim 1 and 3 recite a limitation “assigning, for each frame, one or more of the plurality of macroblocks to be intra refreshed to a first slice group,” [and] “assigning, for each frame, a remainder of the plurality of macroblocks to one or more other slice groups.” Examiner admits that Dixit and Fukuda fail to teach slice groups. To mend such deficiency, Examiner relies on ITU-T Recommendation of H.264, stating that H.264 teaches that “it would have been obvious to one having ordinary skill in the art at the time of the present invention to form H.264 slice

groups based on the mapping of macroblocks of Fukuda, since H.264 states in § 7.4.3, pp. 63-64 that such a modification would prevent propagation by limiting a transmission error or loss to a slice, rather than to the entire picture.” Such rationale is illogical. The motivation to limit error due to packet loss does not give a person having ordinary skill in the art reason to separate intra coded blocks and inter coded blocks into separate slices any more than it gives the person reason to separate dark blocks from light blocks. As such, none of the references cited teach or suggest assigning macroblocks to be intra refreshed to a first slice group and assigning remaining macroblocks to one or more other slice groups, which is required by each of independent claims 1 and 3. Therefore the rejection of claims 1–5 as obvious over Dixit in view of Fukuda and ITU-T Recommendation of H.264 is improper.

Additionally, Claim 1 recites a limitation “indexing the map.” Examiner contends that Dixit teaches “indexing the map” by updating the strip position. However updating the strip position merely describes updating a position variable. Such process must be done for every frame. In contrast, indexing the map affects future frames. According to the application, “by assigning a different frame index to each transmitted map, the map description only needs to be sent once at the start of the communication. All subsequent frames that use the same pattern of refresh blocks can reference the previously transmitted map index. The result is an efficiently transmitted self-correcting video sequence with only the additional channel overhead of sending the plurality of refresh maps at the start of the communication.” Specification at ¶ [0011]. Fukuda and ITU-T Recommendation H.264 likewise fail to teach this limitation. Therefore the rejection of claim 1 over Dixit in view of Fukuda and ITU-T Recommendation of H.264 is improper.

Claims 11–13 and 16–19

The Examiner rejected claims 11–13 and 16–19 as obvious over U.S. Patent 6,333,948 to Kurobe et al. (“Kurobe”) in view of Dixit, and Fukuda. This rejection suffers the same fundamental flaw as that discussed above with respect to claims 1–5. Specifically, each of claims 11–13 and 16–19 recites assigning macroblocks to be intra refreshed to a first slice group, assigning the remaining macroblocks to one or more other slice groups, and generating a map specifying which slice group each macroblock belongs to. Kurobe, like Dixit and Fukuda, lacks

any teaching or suggestion of assigning blocks to be refreshed to a particular slice group while assigning other blocks to other slice groups. In fact, Kurobe (like Dixit and Fukuda) fails to even use the word “slice,” much less describe the particular method steps recited in Applicants claims. As noted above, “slice” is not merely an arbitrary term for a group of blocks selected by Applicants, but rather is a specific term of art describing a particular processing unit in certain video encoding standards. Because, Kurobe (like Dixit and Fukuda) does not teach or suggest the concept of slices, it cannot teach the required steps of assigning blocks to be intra refreshed to one slice while assigning other blocks to other slice groups, nor can it teach the required step of generating a map specifying which blocks belong to which slice groups.

Therefore, the rejection of claims 11–13 and 16–19 as obvious over Kurobe in view of Dixit and Fukuda is improper. Reconsideration and withdrawal of this rejection is therefore requested.

Claims 7–10

The Examiner rejected claims 7–10 as obvious over Dixit in view of Fukuda and Kurobe. Like each of the claims addressed above, claims 7–10 recite the assignment of macroblocks to be intra refreshed to a first slice group, the assignment of remaining macroblocks to one or more other slice groups, and the generation of a map specifying which blocks are assigned to which slices. Rearranging the order of the references does not change their teaching, and thus Dixit, Fukuda, and Kurobe fail to teach or suggest at least the referenced limitations. Therefore, the rejection of claims 7–10 is improper, and reconsideration and withdrawal of this rejection are requested.

Dependent Claims

Each of the claims not specifically addressed depends from one of the claims addressed above, and are therefore patentable for at least the same reasons. Therefore, the rejections of these claims are also improper, and withdrawal of such rejections is requested

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the pending claims is in condition for allowance. Withdrawal of all outstanding objections and rejections and a Notice of Allowance for all pending claims are therefore requested.

Respectfully submitted,

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Date

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